University of Massachusetts Medical School
eScholarship@UMMS

Systems and Psychosocial Advances Research Center Publications and Presentations

Psychiatry

2007

Trajectories of Offending from Childhood to Early Adulthood in Girls With and Without Mental Health System Involvement

Maryann Davis
University of Massachusetts Medical School

Steven M. Banks
University of Massachusetts Medical School

Bernice Gershenson
University of Massachusetts Medical School

See next page for additional authors

Follow this and additional works at: https://escholarship.umassmed.edu/psych_cmhsr

Part of the Criminology Commons, Health Services Research Commons, Juvenile Law Commons, Law and Psychology Commons, Psychiatric and Mental Health Commons, Psychiatry Commons, and the Psychiatry and Psychology Commons

Repository Citation

Davis, Maryann; Banks, Steven M.; Gershenson, Bernice; Fisher, William H.; and Grudzinskas, Albert J., "Trajectories of Offending from Childhood to Early Adulthood in Girls With and Without Mental Health System Involvement" (2007). *Systems and Psychosocial Advances Research Center Publications and Presentations*. 641.
https://escholarship.umassmed.edu/psych_cmhsr/641

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in Systems and Psychosocial Advances Research Center Publications and Presentations by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.

Trajectories of Offending from Childhood to Early Adulthood in Girls With and Without Mental Health System Involvement

Authors
Maryann Davis, Steven M. Banks, Bernice Gershenson, William H. Fisher, and Albert J. Grudzinskas

Comments
Presented at Psychiatry Research Day: Translational Research in Psychiatry, University of Massachusetts Medical School, 2007.

This poster is available at eScholarship@UMMS: https://escholarship.umassmed.edu/psych_cmhsr/641

Trajectories of Offending from Childhood to Early Adulthood in Girls With and Without Mental Health System Involvement

Maryann Davis, PhD, Steven Banks, PhD, Bernice Gershenson, MPH, William Fisher, PhD, Albert Grudzinskas, Jr., JD, Center for Mental Health Services Research

Abstract

Criminology literature is overwhelmingly based in studies of males, though studies of gender differences or of females are rapidly accumulating. Rates of psychiatric disorder are typically higher in females involved with justice systems compared to males. However, the juvenile or criminal justice involvement of girls in mental health systems, or with serious mental health conditions is greatly understudied. Identifying their arrest risk onset, peak, and offset provides practitioners information about when to intervene and with whom. The goal of the present study is to describe within-individual longitudinal arrest patterns from ages 8-24 in this population, and determine whether their arrest patterns differ from general offender females in ways that have practice implications.

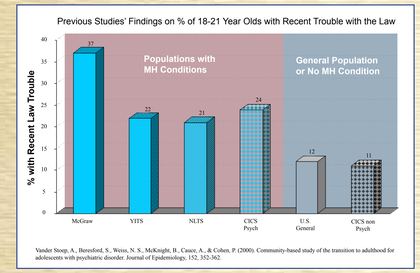
Methods: Using statewide administrative data from the Massachusetts Department of Mental Health (DMH) and Massachusetts' juvenile and criminal courts, a database was constructed that contained juvenile and criminal arrest histories to age 25 for females born 1976-79. DMH females were adolescent service users (n=738). Non-DMH females had no DMH database records (n=34,436). Massachusetts Census 2000 provided the size of the general female population. Developmental trajectory modeling was used to group individuals' patterns of offending over time (trajectories) into "clusters" of those whose trajectories are similar, and describe trajectories. Trajectory comparison methods minimized the greater Non-DMH cohort size.

Results: DMH females were far more likely to be arrested by age 25 than Non-DMH females (46% vs. 22%) and to be arrested at multiple ages (28% vs. 7%). Analyses revealed eight justice system trajectories among those with multiple ages of arrest. Trajectories varied on level of involvement and timing of onset/offset/peaks. Non-DMH females comprised at least 93% of each trajectory cluster, though several clusters showed significant over- or under-representation of DMH females.

Conclusions: Concern about justice system involvement of female youths in intensive MH services is justified. Among girls with multiple ages with arrest, differences in criminal careers between the mental health and non mental health system users was minimal. Implications of trajectory findings for timing and type of intervention will be presented.

Introduction

Why look at arrests in the transition age group with serious mental health conditions?



Goal

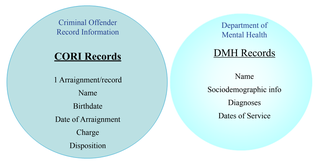
Develop Knowledge to Help Prevent/Minimize Justice System Involvement of Youths in MH Services

- Good target for prevention reduction; high risk and in services
- Need more specific information; when, what, who?

For additional information contact:
Maryann Davis, PhD
Phone: 508-865-8716
E-mail: maryann.davis@umassmed.edu

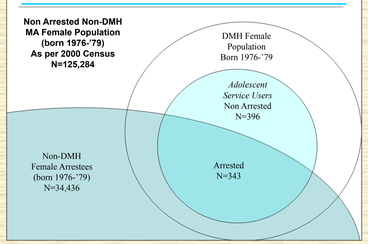
Methods

Used Two Massachusetts Statewide Administrative Databases



CORI records pulled as of July '05 — DMH records pulled as of March '06

Female Population Overlap; DMH and Justice System

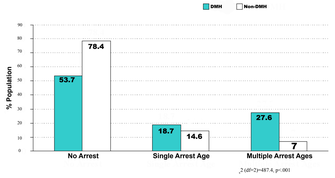


Comparative Trajectory Approach

Developmental Trajectory Modeling describes groups of individuals with similar longitudinal arrest patterns over time, and describes those arrest patterns.

1. Analyze DMH and Non-DMH females separately
2. Determine ideal number of groups and pattern within those groups (try to split big groups)
3. Found 4 in each
4. Combined the populations, used starting values
5. Determined ideal number of groups and pattern within those groups (try to split big groups)

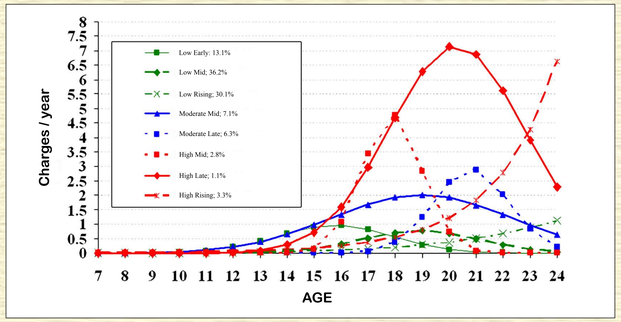
Frequency of Arrest by Age 25 DMH vs Non-DMH *Females*



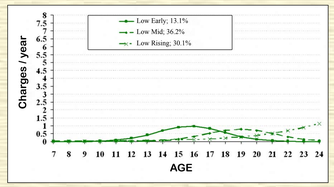
Trajectories of charges were analyzed in those females with an arrest in more than one year of age (28% of DMH females and 7% of Non-DMH females).

Results

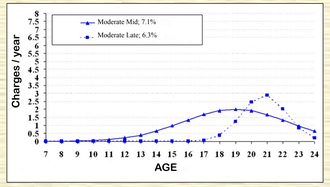
Female Trajectory Groups - Predicted Charges/Year



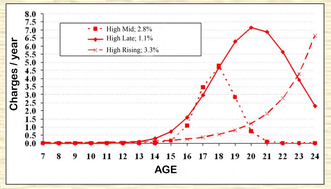
Combining DMH and Non-DMH females' court records resulted in the best model having a total of eight unique patterns of charge frequencies over time.



The most common charge patterns over time were of low frequency, with highest probable number of charges varying from ages 16, to 19, to age 24. These groups accounted for 79% of the population.

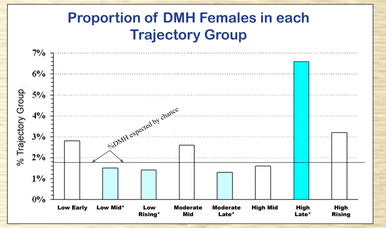


The second most common charge patterns over time were of moderately elevated peaks at ages 19 and 21. These groups accounted for 13% of the population.



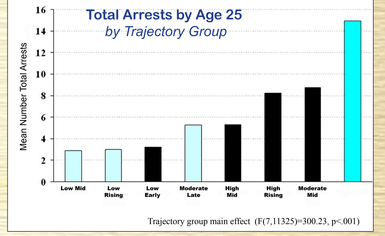
The least common charge patterns over time were the most alarming. The greatest probable number of charges occurred at ages 18, 20 and 24, with values of roughly 5-7 charges per year at the peaks. These groups accounted for 7% of the population.

Proportion of DMH Females in each Trajectory Group



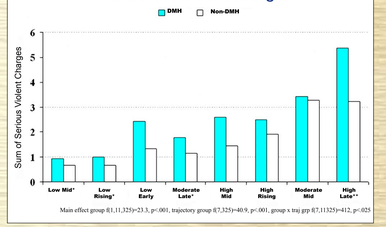
None of the trajectory groups was unique to the DMH or the Non-DMH populations. However, there was over-representation of the DMH population in one of the most concerning, and smallest groups (High Late), and under-representation in two of the least concerning, and one of the moderate groups.

Total Arrests by Age 25 *by Trajectory Group*



The group in which DMH females were overrepresented accumulated the highest number of arrests of any group, the groups in which they were under-represented were among those with the lowest accumulation of arrests.

Total Serious Violent Charges



All trajectory groups had some serious charges. The DMH females in some trajectory groups accumulated many more of the serious violent charges than Non-DMH females, while in other trajectory groups they accumulated some more than Non-DMH females, and in one trajectory group the two were similar.

Conclusions

Summary of Trajectory Findings

- There are no trajectory patterns that are unique to either group
- The impact of DMHness is primarily expressed in the proportionality of their presence in each trajectory group
- The trajectory groups that are most common are among the patterns least concerning (1,5,7)
- Different trajectories have different prevention timing implications

Acknowledgement

The data analysis presented here would not have been possible without the perseverance, guidance and consistently congenial mentoring of our beloved colleague, Dr. Steven Banks